

URGEISCEmails

From: Jon J. Indall [JIndall@cmtisantafe.com]
Sent: Friday, September 26, 2008 4:36 PM
To: NRCREP Resource
Cc: M Pelizza
Subject: FW: UPA Comments to Report No. NUREG-1910, ISR GEIS
Attachments: UPA Comments to Report No. NUREG-1910.pdf

Please submit these comments on behalf of the Uranium Producers of America for Report NUREG-1910. Thank you.

From: Carol Tombelaine
Sent: Friday, September 26, 2008 2:28 PM
To: Jon J. Indall
Subject:

Carol Tombelaine | Tel: 505.982.4611 | Fax: 505.988.2987 | ctombelaine@cmtisantafe.com

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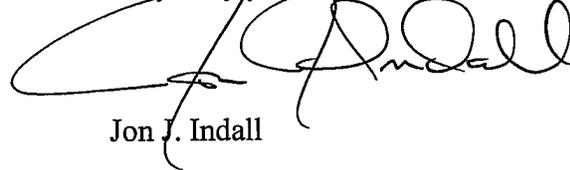
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U. S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 20555-0001

Re: Uranium Producers of America
Comments to Report Number NUREG-1910

Dear Sir:

Please accept the Uranium Producers of America's comments to the draft *In Situ* Recovery Generic Environmental Impact Statement, NUREG-1910.

Very truly yours,



Jon J. Indall

JJI/cat

Enclosure

**URANIUM PRODUCERS OF AMERICA
COMMENTS ON THE GENERIC
ENVIRONMENTAL IMPACT STATEMENT
FOR IN SITU RECOVERY FACILITIES**

The Uranium Producers of America ("UPA") appreciates the opportunity to submit comments on Nuclear Regulatory Commission's ("NRC") development of a Generic Environmental Impact Statement ("GEIS") to be used in assessing the potential environmental impacts at *in situ* uranium recovery ("ISR") facilities. UPA is a group of domestic uranium producers that work together to promote the viability of the domestic uranium industry. UPA members consist of all current conventional uranium recovery and/or ISR licensees, as well as potential future conventional and/or ISR license applicants. UPA members currently have ISR license applications pending before the NRC. UPA members have been involved since the inception of uranium ISR operations in working with NRC to support uranium recovery regulations that will protect the public health, safety and environment.

A. General Comment.

UPA strongly urges NRC to promptly complete the GEIS and pursue license application approval with alacrity. It is of the utmost importance that the United States develops its uranium resources to fuel the growing requirements of the domestic nuclear power industry. UPA believes nuclear powered energy must play an ever increasing role in our nation's energy needs, and energy independence requires a much greater percentage of uranium fuel supply than currently exists. The GEIS will allow NRC to review and approve ISR applications on a timely basis. Prompt ISR permit approvals will allow uranium production in this country to grow and reduce the 90% reliance on foreign uranium we currently face.

UPA supports the finalization of the ISR GEIS. The NRC and Agreement States are already receiving new license applications to meet our nation's growing uranium needs. The ISR GEIS is an important step for efficient review which will expedite the licensing process.

The ISR uranium recovery industry and NRC have developed a solid understanding of this process over the past thirty years. As recognized by the ISR GEIS, *in situ* recovery has been practiced successfully for this period. Prior and current ISR operations have generated a wealth of information that has been consolidated in the ISR GEIS. Using a GEIS approach is particularly applicable to ISR operations because the subsurface and surface operations are essentially similar at each particular site.

B. Specific Comments.

1. Criticism Of NRC's ISR GEIS Approach Is Misplaced.

UPA believes that the criticism of NRC's intended use of the ISR GEIS in license application reviews is ill founded. Opponents of *in situ* recovery have argued that the adoption of the ISR GEIS will circumvent public participation regarding license applications and deny site specific review. These arguments are wrong.

NRC plans to use the GEIS to prepare an environmental impact statement (EIS) or supplement to an EIS, for site-specific ISR license applications. The GEIS evaluates those actions which have relevant similarities, such as common timing, impacts, alternatives, methods or implementation, media or subject matter. In the GEIS, NRC evaluated the potential environmental impacts of the relatively standard technology used in ISR facilities as operated in specified geographic areas. The GEIS makes it clear it is to be used in a widely used process called tiering, which is a procedure by which more specific or more narrowly focused environmental documents can be prepared without duplicating relevant parts of previously

prepared, more general, or broader documents.

The public is allowed to participate in any NRC license review. Before the site specific review the NRC will conduct an acceptance review of an ISR license application and after acceptance the NRC will publishes notice in the Federal Register of the public availability of the application and opportunity for hearing. NRC will then conduct a site specific, independent, detailed evaluation of the potential environmental impacts for each of the environmental resource areas of the applicant's proposed ISR facility.

Relevant portions of the GEIS will be incorporated into the site-specific environmental review. The NRC staff may find that the GEIS conclusions for a specific resource area can be adopted in full, only in part, or not at all. For those cases in which the GEIS conclusions cannot be adopted, the NRC staff will determine whether development of a site-specific environmental assessment (EA) or EIS is appropriate due to the significance of the differing environmental impacts. In other words, in some cases, the site-specific environmental review will be an EA that supports a finding of no significant impact (FONSI). In other cases, a site-specific EIS will be developed to analyze topic areas where a FONSI cannot be supported. If the NRC staff determines that an EA is appropriate, the staff will make a draft of the EA and accompanying draft FONSI available for public comment before taking any licensing action on the ISR application. If the NRC staff concludes that it needs to prepare an EIS, a notice of intent will be published in the Federal Register and the NRC staff will follow the required public participation procedures which include requests for public input on the scope of the EIS and for public comment on the draft site specific EIS.

The GEIS explains that a so called Level 1 or Level 2 site-specific cumulative effects

analysis would likely be sufficient for nine resources including: land use, transportation, geology and soils, air quality, noise, visual and scenic resources, socioeconomics, public and occupational health and safety, and waste management. NRC identified four other resources where a so called Level 3 analysis might be required based on local site-specific conditions including surface water resources, groundwater resources, ecology, and historical and cultural resources. A Level 3 analysis would require a site specific EIS.

The Council on Environmental Quality ("CEQ") has specifically recognized the appropriateness of the programmatic/generic EIS approach to enhance environmental impact reviews. As explained above, the ISR GEIS will in no way deprive the public from participating in each site specific permit application. Comments attacking the appropriateness and future application of the ISR GEIS are misplaced.

2. Claims That *In Situ* Recovery Operations Will Damage Pristine Drinking Water Ignore Aquifer Exemption And UIC Requirements.

A common claim by those opposing *in situ* uranium recovery operations is that the process involves the injection of chemicals into "pristine" or "drinking water" aquifers. This claim is false and misleading. To assure safe and effective underground injection throughout the United States, Congress in 1974, enacted the Safe Drinking Water Act ("SWDA"), which, in part, authorizes the establishment of the Underground Injection Control ("UIC") program. The UIC program is designed to ensure that injection wells will not endanger underground sources of drinking water ("USDWs"). Underground injection is defined in 40 C.F.R. § 146.3 as "the subsurface emplacement of fluids through a bored, drilled or driven well. . . ." Thus, all ISR recovery injection well activities require these relevant authorizations.

UIC regulations establish specific performance criteria for each class of well (ISR uranium mining wells are EPA Class III wells) to assure that drinking water sources, actual or

potential, are not damaged by underground injections during commercial mineral recovery operations. Compliance with the UIC permit assures that in situ operations will be confined to the exempted aquifer area within a prescribed area of review.

Before ISR operations can commence at any site, the operator must obtain an aquifer exemption for the aquifer or portion of the aquifer wherein ISL mining operations will occur. A USDW is defined as an aquifer, or portion thereof, which serves as a source of drinking water for human consumption, or contains a sufficient quantity of water to supply a public water system, and contains fewer than 10,000 mg/liter of total dissolved solids ("TDS").¹ Within this regulatory framework, some aquifers or portions of aquifers may not reasonably be expected to serve as current or future sources of drinking water. As a result, the UIC program regulations permit EPA to *exempt* portions of an aquifer from designation as a USDW and allow for injection into such aquifers or portions thereof.

EPA regulations at 40 C.F.R. § 146.4 specifically state:

"An aquifer or a portion thereof which meets the criteria for an "underground source of drinking water" in § 146.3 may be determined under 40 C.F.R. 144.8 to be an "exempted aquifer" if it meets the following criteria:

- (a) It does not currently serve as a source of drinking water; and
- (b) It cannot now and will not in the future serve as a source of drinking water because:
 - (1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible;
 - (2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;
 - (3) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or
 - (4) It is located over a Class III well mining area subject to subsidence or catastrophic collapse; or
- (c) The total dissolved solids content of the ground water are more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system."

¹ See 42 U.S.C. § 300(b)(1)(2005).

Aquifers meeting this criteria are generally associated with in situ mineral recovery or enhanced oil recovery. If an operator, licensee or permittee wishes to inject into a USDW for the purpose of recovering minerals such as uranium, a demonstration must be made that the proposed aquifer meets at least one of the exemption criteria.

What this means, and what *in situ* recovery opponents fail to admit, is that the aquifer to be mined is not fit for drinking water purposes. The water isn't suitable for drinking water use now or in the future. The water is not suitable for drinking water purposes whether it is mined or not. The water in an exempted aquifer is far from pristine and this point should be addressed in the GEIS.

There have been over thirty aquifer exemptions approved by EPA in Texas, Wyoming, Nebraska and New Mexico for ISR operations. None of these operations have operated in pristine waters. The GEIS should clarify this misconception. Further, it should indicate there has not been any significant adverse impacts to a USDW or a regional aquifer in any past operations.

3. The ISR GEIS Should Address Restoration Requirements.

Another issue raised by opponents to ISR operations concerns the restoration of an aquifer to its original quality. EPA UIC regulations do not require groundwater restoration of exempted aquifers, presumably because such exempted aquifers will never be used as USDWs. However, as set forth in 40 C.F.R. § 146.7, EPA does require corrective action/remediation for any contamination of adjacent non-exempt aquifers in accordance with the purpose of the SDWA and the UIC program to protect USDWs. Further, after restoration the UIC Permit requires plugging of wells to assure that there is not post restoration interformational transfer of groundwater from the exempted interval to overlying USDWs.

The track record for the uranium ISR industry is well established, and no adverse impacts to USDWs in adjacent aquifers have occurred. The GEIS should stress the goals of restoration that is to protect adjacent USDW aquifers and fully discuss successful restoration projects in order to allay restoration concerns.

The draft GEIS does not adequately address the manner in which mandatory license operations and restoration processes and conditions complement natural hydrological and geochemical conditions to minimize adverse impacts on the environment at ISR sites. A discussion of this important relationship was contained in the National Mining Association's GER. A complete discussion of this critical relationship would enhance the general public's understanding of the limited potential risks and impacts posed by ISR operations.

4. The ISR GEIS Should Be Completed As Soon As Possible So As To Not Further Delay ISR Permit Application Pending Before NRC.

UPA members have permit applications for ISR operations currently pending before NRC. These applications are awaiting completion of the GEIS for final review. UPA would urge NRC to complete the ISR GEIS as promptly as possible so that NRC can complete the pending license applications approval in a timely manner. The production from these proposed operations and others that will follow will increase the domestic supply of uranium and reduce the country's reliance on foreign uranium. This will promote energy security for the nation. These operations will also provide jobs, tax revenues and economic benefits to the rural areas in which the uranium deposits have been placed by nature.

5. The Draft GEIS Contains Errors In Discussion Of Land Use In Northwestern New Mexico.

A. The discussion in 3.5.1 Land Use in Northwestern New Mexico Uranium Milling Region state "[c]ontamination of water supplies within the Rio San Jose Basin as a result of

uranium milling has further heightened the Navajo Nation' sensitivity to land uses that may affect their ability to use tribal lands for raising livestock is misleading. The Navajo Nation has enacted a ban on any uranium recovery operations on the Navajo Reservation. This ban has been respected and no uranium operators are attempting to operate within the Navajo Reservation. The effect of the Navajo ban on off-reservation lands is subject to legal debate. However, no study has indicated that historic milling activities have contaminated water supplies in the Rio San Jose Basin that could affect the Navajo's raising of livestock. UPA believes this statement is incorrect.

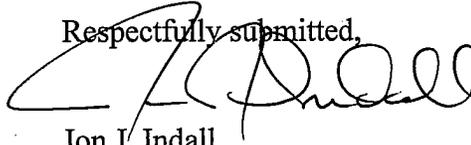
B. The statement in 3.5.1 at page 3.5.4 that in February 2008, the New Mexico Cultural Properties Review Committee approved listing the Mount Taylor Traditional Cultural Property in the State Register of Cultural Properties is incorrect. The February 2008 listing was withdrawn due to improper notice, but was reinstated in June 2008. Further, the listing is an emergency listing that is only valid for a one-year period unless made permanent by the Committee.

C. At 3.5.21 the draft report states that groundwater in the northwestern New Mexico Region area is suitable for drinking. This statement is overbroad as much of the groundwater in this region exceeds the drinking water standard in its natural state. This is especially true for groundwater found in mineable portions of regional aquifers. For example, the background levels around the Homestake Mill are established as above the uranium drinking water standard. The groundwater in northwestern New Mexico has varying background levels of numerous constituents and in many cases one or more constituents will exceed the drinking water standards. We believe to suggest that all groundwater meets drinking water standards is erroneous.

C. Conclusion.

UPA applauds the effort expended by NRC in preparing the draft ISR GEIS. As stated in our comments, we strongly urge NRC to review the comments received and to finalize the GEIS as soon as possible.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jon J. Indall". The signature is written in a cursive style with a large initial "J".

Jon J. Indall

Counsel for Uranium Producers of America